

When policy meets practice: enacting WHO global standards for adolescent reproductive health services in Uganda

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When Policy Meets Practice: Enacting WHO Global Standards for Adolescent Reproductive Health Services in Uganda

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Abstract

Background: Adolescent pregnancy remains a major public health concern in sub-Saharan Africa. In Uganda, about one in four girls becomes pregnant before age 19, a rate unchanged for more than a decade. Although national adolescent reproductive health policies broadly align with the World Health Organization Global Standards for Quality Health Care Services for Adolescents, important implementation gaps persist. This study examined how these standards are enacted in routine health facility and school settings.

Methods: A qualitative study was conducted in eight public health facilities and eight secondary schools in south-western Uganda. Data were collected through structured observations and exit interviews with 80 adolescent girls aged 15-19 years and 20 accompanying caregivers. Health-facility findings were organised using the eight World Health Organization Global Standards, while school observations were assessed against national school health and teenage pregnancy guidelines and interpreted alongside the World Health Organization framework. Data were analysed thematically in NVivo using Braun and Clarke's framework, with Street-Level Bureaucracy theory informing interpretation of how standards were enacted in practice.

Results: Implementation was partial and uneven across both settings. Some facilities provided respectful and confidential care, while others had stock-outs of essential commodities, reported out-of-pocket purchases, limited adolescent-friendly spaces, and judgemental or dismissive treatment, particularly toward unmarried adolescents. School-based reproductive health activities were largely abstinence-oriented and often donor-dependent, with weak curriculum integration, referral systems, monitoring, and evaluation. Community engagement and adolescent participation were limited in both settings. Several donor-supported activities became inactive after funding ended because they had not been absorbed into routine institutional systems. The findings indicated alignment in policy intent but weak embedding of adolescent-responsive components in routine institutional systems.

Conclusion: Uganda's adolescent reproductive health policy framework is broadly aligned with World Health Organization Global Standards, but implementation remains uneven because adolescent-responsive components are not sufficiently institutionalised within routine financing, supervision, school programming, data use, and accountability systems. Closing this gap requires

embedding adolescent-responsive services in routine institutional systems and strengthening adolescent-specific supervision and accountability.

Keywords: Adolescent reproductive health; Adolescent pregnancies; World Health Organization Standards; Policy implementation; Street-Level Bureaucracy; Uganda.

Background

Adolescent pregnancy (10-19 years) remains a major global health issue (1), with 21 million adolescent pregnancies (15-19) annually in low- and middle-income countries (2). In 2021, approximately 12.1 million girls aged 15-19 years and 499,000 girls aged 10-14 years gave birth globally (3). Pregnancy and childbirth-related complications are among the leading causes of death in adolescent girls (4). In sub-Saharan Africa, the adolescent birth rate is 97.9 per 1,000 girls, more than twice the global average of 42 (5). Uganda illustrates this crisis, with about 24% of adolescent girls becoming pregnant before the age of 19 years (6), a rate that had remained unchanged for over a decade (7). Of those pregnancies, about half were unintended (6), and the unmet need for family planning among sexually active unmarried adolescents is high, at 45% (8). Adolescent pregnancies are linked to maternal and neonatal complications, school dropout, intergenerational poverty and account for roughly 20% of maternal mortality (9-12).

While quality reproductive health services could address these challenges, adolescents in sub-Saharan Africa experience barriers at multiple levels, including personal level (e.g. misperceptions, low self-esteem, and financial constraints), the interpersonal level (e.g. unsupportive families and lack of open communication between adolescent-parent about sexuality issues), the institutional level (e.g. lack of provider competency, provider attitude, shortage of medicine) and the community-level (e.g. social, religious, and gender norms) (13,

14). A recent study among adolescents in Uganda identified social norms surrounding premarital sex and contraceptive use as major barriers to service access (15). Other impediments include a shortage of medicines, inadequate staffing, long waiting times, limited privacy, and financial constraints (15, 16).

Evidence suggests that community engagement, comprehensive sexuality education and adolescent-friendly health services are key interventions to address the determinants of adolescent pregnancies (17). Uganda's 2012 Adolescent Health Policy Guidelines and Service Standards aim to standardise the provision of adolescent-friendly health services and define a minimum package of care (18). The policy also recognises schools as important platforms for adolescent health promotion, referral, and community engagement.

These national guidelines reflect adolescent-friendly service principles consistent with global quality-of-care frameworks, including the WHO Global Standards for Quality Health-Care Services for Adolescents (19). The WHO Standards articulate normative expectations for equitable, acceptable, appropriate, and effective adolescent health services across health systems, including linkages to communities and schools (19). Nevertheless, studies across sub-Saharan Africa report inconsistent provision of adolescent-friendly services (20-22), and similar implementation challenges have been observed in adult reproductive health services in Uganda (23-26).

While existing literature has focused mainly on barriers affecting adolescents' access to and use of reproductive health services, less is known about how global and national quality standards are enacted, adapted, or diluted in everyday health-facility and school practice, particularly in

resource-constrained contexts. This study, therefore, examines how Uganda's ARH policy and associated standards are implemented and experienced in routine service-delivery settings.

Conceptual Framework

This study is guided by the WHO quality-of-care framework for adolescent-friendly health services (19) and the Street-Level Bureaucracy (SLB) theory (27). The WHO Global Standards provide the normative benchmark for assessing what adolescent-responsive services should deliver, while SLB theory explains how frontline actors interpret and enact these standards within routine service-delivery contexts.

The WHO quality of care framework outlines eight global standards focused on (i) adolescent health literacy, (ii) community involvement, (iii) appropriate service package, (iv) provider competence, (v) health facility characteristics, (vi) equity and non-discrimination, (vii) data and quality improvement and (viii) adolescent participation. These standards define normative expectations for equitable, acceptable, appropriate, and effective adolescent health services and provide a structured benchmark for assessing institutional readiness and service quality.

SLB theory posits that frontline implementers, such as teachers, doctors, nurses, and administrators, exercise discretion in interpreting and applying policies in resource-limited, socially complex environments. These discretionary practices shape how policies are enacted and may lead to divergence from formal intentions.

The WHO standards served as an analytical structure to organise findings across domains, while SLB theory informed the interpretation of how standards were enacted, adapted, or constrained in everyday practice. SLB was applied interpretively and did not guide data collection or coding,

but it did support the analysis of the relationship between policy design and implementation realities.

Methods

Study Design

This qualitative descriptive study explored how ARH policy standards are implemented through structured observations and experienced through qualitative exit interviews with adolescent girls attending ARH services and their accompanying caregivers in Uganda. This study was reported in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist.

Study Setting

This study was conducted in Kabale and Mbarara districts in southwestern Uganda. Kabale (Kigezi region) is predominantly rural, whereas Mbarara (Ankole region) is an urbanising district with advanced health and education infrastructure. Both districts are located in subregions where adolescent childbearing remains substantial. The Kigezi subregion has approximately 14.9% of girls aged 15-19 years who have begun childbearing, and the Ankole subregion has approximately 17.2% (6). Both districts host government and non-governmental adolescent health initiatives, providing diverse contexts for assessing policy implementation across health facilities and schools.

Uganda's public health system is organised in a hierarchical structure comprising Health Centre (HC) II, HC III, HC IV, general hospitals, and regional referral hospitals.

In the study districts, ARH services are delivered primarily through HC III, HC IV, and regional referral hospitals, which were the focus of this study. HC III facilities provide outpatient

services, basic maternal health care, and family planning, while HC IV facilities offer inpatient care, emergency obstetric services, and surgical referrals. Regional referral hospitals serve as the highest level of care within the districts, providing specialised services and acting as referral centres for lower-level facilities.

These public health facilities represent the primary formal points of access for adolescents to obtain free family planning and other reproductive health services within the public sector.

Sampling and Recruitment

A total of eight health facilities and eight public secondary schools were included across the two districts. Health facilities were selected using stratified sampling to ensure representation of different service levels, including HC III and IV and regional referral hospitals. Within each stratum, facilities were selected by simple random sampling. In strata where the number of facilities matched the required sample, all were included without further sampling. Schools were purposively selected within the same catchment areas as the sampled health facilities to capture school-based implementation within corresponding service delivery contexts.

At health facilities, adolescent girls aged 15-19 years who had received any ARH service (antenatal, family planning, delivery, postnatal, or post-abortion care) on the day of data collection were approached consecutively and invited to participate. A target of approximately 10 adolescent interviews per facility was predetermined to ensure balanced representation across facilities. Although thematic saturation was reached before the target was met at several facilities, interviews continued to the planned number per site to maintain consistency across facilities. In total, 80 adolescent girls participated. Two adolescent girls declined to participate due to time constraints.

Caregivers were interviewed when adolescent girls were accompanied by an adult during facility visits. Caregiver recruitment was independent of adolescent interview inclusion, and participation depended on whether an accompanying adult was present at the time of service utilisation. In total, 20 caregivers were interviewed across the eight facilities, and all parents/caregivers approached agreed to participate.

Regular team debriefings were held during data collection. Thematic saturation was assessed across the overall dataset. It was considered reached when no new substantive codes or themes emerged during iterative team debriefings.

Data Collection

Data collection took place between 14th July and 30th November 2025 using two complementary methods: structured observations in health facilities and schools, and semi-structured exit interviews.

Data collection teams were present at health facilities from opening to closing on data-collection days to observe service flow and institutional practices during routine operations.

Health-facility observations employed a standardised observation checklist, adapted from the Adolescent Health Policy Guidelines and Service Standards (18), which are aligned with the WHO Standards. Eight domains were assessed: adolescent health literacy, community support, appropriate package of services, providers' competencies, facility characteristics, equity and non-discrimination, data and quality improvement, and adolescent participation. Field notes captured contextual details and provider-client interaction to document how standards were interpreted and applied in routine practice. The health-facility observation checklist is provided as Additional file 1.

School observations used a pretested checklist adapted from the Uganda School Health Policy (28) and the Revised Guidelines for the Prevention and Management of Teenage Pregnancy in School Settings in Uganda (29). These documents were used to assess school-based implementation of adolescent reproductive health promotion, support, participation, community engagement, and referral linkages, while the WHO Global Standards provided an overarching analytical framework for cross-setting interpretation.

Structured observations of specific domains within facilities and schools lasted 1 to 2 hours and were embedded within full-day presence at health facilities. Field notes were taken to record the context and interactions between adolescents and health workers. The school observation checklist is provided as Additional file 2.

Exit interviews were conducted with 80 adolescent girls aged 15-19 years and 20 accompanying parents or caregivers, using a semi-structured guide.

The exit interview guides were piloted with five adolescent girls and three mothers or caregivers at a public HC IV facility outside the study sites to assess clarity, flow, cultural appropriateness, and interview length. Minor revisions were made to enhance wording and the order of questions.

The adolescent and parent/caregiver exit interview guides were developed for this study.

Interviews examined the adolescent-friendliness of ARH services by assessing perceptions of service access, provider attitudes, and family or community support, corresponding to key domains of the WHO Service Standards. English-language versions are provided as Additional files 3 and 4.

Adolescent girls aged 18 or 19 years provided written informed consent. Adolescent girls younger than 18 years who were accompanied by a parent or caregiver provided written assent,

with consent obtained from the accompanying adult. Unaccompanied adolescent girls younger than 18 years who met the national criteria for mature or emancipated minors provided written informed consent for research participation, in accordance with Research Ethics Committee (REC) approval and the Uganda National Council for Science and Technology (UNCST) guidelines (30). Interviews were conducted in private settings, lasted 30-45 minutes, were audio-recorded with permission, and no repeat interviews were conducted.

Structured observations and exit interviews were conducted by the lead author, with support from two trained research assistants fluent in English and Runyakore/Rukiga. The lead author is a midwife, lecturer, and PhD researcher experienced in qualitative methods. The two research assistants underwent training in research ethics, qualitative interviewing techniques, administering the interview guide, and approaches to interviewing adolescents about sensitive topics.

Reflexive field notes documented interactions, positionality, and potential biases throughout data collection. Daily team debriefs were conducted to discuss emerging issues and adapt interview approaches to preserve neutrality, minimise personal bias, and ensure comfort when working with minors, including consistent probing and reflection on sensitive interviewing practices.

Data Management and Analysis

Structured observation indicators were coded as present or absent for each WHO Global Standard domain. For each facility, the number of indicators present was calculated as a proportion of the total indicators assessed within that domain (n/N). To summarise implementation across sites, results were grouped into three descriptive categories: “present” ($\geq 2/3$ of indicators present), “partially present” ($\geq 1/3$ to $< 2/3$ of indicators present), and “absent”

(<1/3 of indicators present). These thresholds were applied for descriptive classification purposes to facilitate cross-site summarisation and do not represent validated scoring cut-offs. These categories were used to summarise the findings of structured observations. Domain-level summaries are presented in Tables 3 and 4.

Audio recordings were transcribed verbatim and translated into English by bilingual research assistants. Transcripts were verified for accuracy and pseudonymized before analysis.

Participants were not invited to review the transcripts. All data were stored on a password-protected computer accessible only to the lead researcher.

Data were analysed thematically following Braun and Clarke's six-step framework: familiarisation, coding, theme generation, review, definition, and reporting (31). Observation field notes were also coded and analysed alongside interview transcripts and used to contextualise and triangulate findings. An inductive approach allowed themes to emerge from participants' narratives, which were then analytically mapped to the eight WHO Global Standards for Adolescent Health Services to structure interpretation.

SLB theory informed the interpretive phase of analysis by providing a conceptual lens for understanding how frontline discretion, resource constraints, and organisational context shaped the enactment of standards.

Coding and theme refinement were conducted collaboratively using NVivo 15. Two researchers coded the data, and approximately 15% of transcripts were independently double-coded for quality control, with differences resolved through consensus. To ensure rigour and trustworthiness, credibility was strengthened through the triangulation of data sources (interviews and observations) and peer debriefing among researchers. Dependability was maintained via an audit trail of field notes, coding records and analytical memos. Confirmability

was strengthened through reflexive journaling and external review of themes by co-authors not involved in data collection. Transferability was achieved by providing detailed descriptions of the sites and participant characteristics, enabling readers to assess the relevance of the findings to other low-resource settings.

Reflexivity

The lead author is a female midwife, lecturer, and PhD researcher affiliated with both a Ugandan university and an international academic institution. She had no prior relationship with participants before recruitment and was not involved in their clinical care at the study sites. Nonetheless, reflexive memos were maintained throughout data collection and analysis to consider how professional background and researcher positioning might shape interactions and interpretation. Interviews took place in private settings, with confidentiality emphasized, and participants were encouraged to speak openly.

Ethical Considerations

Ethical approval was obtained from the Research Ethics Committee (REC) of Katholieke Universiteit Leuven (KU Leuven) (G-2024-8892-R4(MAR)) and the Kabale University Research Ethics Committee (KABREC-2025-883). Final clearance was obtained from the Uganda National Council for Science and Technology (UNCST) (HS6231ES). Administrative permission was obtained from Mbarara Regional Referral Hospital, Kabale Regional Referral Hospital, and the relevant district health and education authorities. All procedures involving human participants were conducted in accordance with the ethical standards of the relevant institutional and national research committees and with the 2013 Declaration of Helsinki.

Before enrolment, participants were informed about the purpose of the study, the role of the researchers, and the voluntary nature of participation, including their right to decline or withdraw at any time without affecting their care.

Written informed consent was obtained from participants aged 18 years and above. For participants younger than 18 years, written assent and parent or caregiver consent were obtained when the participant was accompanied. Unaccompanied participants who met the national criteria for mature or emancipated minors provided written informed consent for research participation in accordance with REC approvals and national guidance.

Results

Participant Characteristics

A total of 80 adolescent girls and 20 parents or caregivers participated in this study between 14th July and 30th November 2025. The adolescent girls were aged 15-19 years, with 73.8% aged 19. Most participants were no longer attending school (78.8%), 7.5% were currently enrolled, and 13.8% had never attended school. The majority of adolescent girls were married (75.0%). These demographics reflect a predominantly young, married population with limited education and employment, describing the socioeconomic characteristics of adolescent service users in Southwestern Uganda. The exit-interview sample was largely composed of older, married, out-of-school adolescent girls accessing maternal health services. The exit-interview findings, therefore, primarily reflect the experiences of adolescent girls already seeking care and do not represent younger adolescents, unmarried girls not accessing services, in-school adolescents, or boys. Sociodemographic characteristics of adolescent participants are summarised in Table 1.

The adolescent girls accessed a range of reproductive health services, with antenatal care being the most common (58.8%). Approximately 1 in 5 adolescent girls (18.8%) visited a health facility for family planning services. There was a difference in service use between unmarried and married adolescent girls, with unmarried adolescents more frequently accessing family planning services and married adolescents more frequently accessing antenatal care services. The exit interview probed for the use of other reproductive health (RH) services (including HIV testing and treatment, cervical screening and post-abortion care), but those were not reported.

Table 1. Sociodemographic Characteristics of Adolescent Participants (n = 80)

Variable	Categories	n (%)
Age (years)	15-16	2 (2.5)
	17-18	19 (23.8)
	19	59 (73.8)
Schooling attendance status	Currently in school	6 (7.5)
	Primary	0 (0)
	Secondary	2 (33.3)
	Tertiary	4 (66.7)
	Dropped out of school	63 (78.8)
	Primary dropouts	44 (69.8)
	Secondary dropouts	19 (30.2)
	Tertiary dropouts	0 (0)
	Never went to school	11 (13.8)
Occupation	None	28 (35.0)
	Domestic work	35 (43.8)
	Business /vending	4 (5.0)
	Farming	13 (16.3)
Marital status	Single	20 (25.0)
	Married	60 (75.0)
	Separated	0 (0)
Type of service sought according to marital status	Antenatal care (ANC)	47 (58.8)
	ANC single	5 (25)
	ANC married	42 (70)
	Family planning (FP)	15 (18.8)
	FP single	9 (45)
	FP married	6 (10)
	Delivery	7 (8.8)

	Delivery single	2 (10.0)
	Delivery married	5 (8.3)
	Post-natal care (PNC)	9 (11.3)
	PNC single	3 (15)
	PNC married	6 (10)
	Pregnancy test	2 (2.5)
	Single	1(5.0)
	Married	1(1.7)

Percentages for service use are calculated within marital status categories (row percentages).

All the adolescents' parents or caretakers were female, predominantly biological mothers. The group also included a mother-in-law, a sister-in-law, a cousin, and a friend. The exit interview sample, therefore, reflected the perspectives of female adolescent service users and female caregivers.

Alongside interviews with adolescent girls and parents/caregivers, we conducted observations in health facilities and schools using a standardised checklist. These observations complemented the interview data in both health facilities and schools.

Overview of Results

Findings are presented according to the eight WHO Global Standards, which structured the analysis across health facilities and schools. Data from facility and school observations, adolescent girls and caregivers, and field notes are integrated to describe how ARH standards were enacted in routine service delivery settings.

Across domains, implementation was predominantly partial rather than complete. In health facilities, service package provision and elements of facility characteristics met the “present” threshold in several sites, while community support and adolescent participation were largely

absent. Provider competencies, equity, and data use were inconsistently implemented across facilities.

In schools, curriculum integration was uniformly absent, and no monitoring and evaluation systems were established. Student engagement emerged as the strongest domain, with several schools meeting the “present” threshold, while teacher competencies, school environment, and community involvement were mostly partial or absent. Overall, no facility or school demonstrated comprehensive implementation across all standards.

Table 2 summarises key findings across the eight WHO Global Standards for Quality Health-Care Services for Adolescents, drawing on evidence from exit interviews and observations of health facilities and schools

WHO Standard	Illustrative Findings (Participant and Observation findings)
1. Adolescent Health Literacy	<i>“She was using only English; this girl could not understand what the doctor was saying.”</i> (POA10) Observation: • ARH materials were absent in 5/8 facilities. • Dedicated ARH information boards were observed in 5/8 schools; however, no schools displayed ARH rights materials or curriculum-based content (0/8).
2. Community Support	<i>“I do everything alone; my parents do not help.”</i> (AD10) Observation: • 0/8 facilities met the “present” threshold for community support; outreach and peer activities had ended in several facilities following donor withdrawal. • 4/8 schools held PTA meetings, but ARH topics were not included.
3. Appropriate Package of Services	<i>“They [nurses] gave me all the medicines and did not tell me to buy.”</i> (AD7) <i>“If you go without money, they [health workers] just leave you there.”</i> (AD62) Observations: • 2/8 facilities faced stock-outs of essential commodities • 2/8 facilities had functional adolescent corners at the time of observation. • 4/8 Schools had limited linkages with health services.

4. Provider Competence	<i>“He [doctor] was so busy on his laptop that he did not give us time.” (POA11)</i> <i>“Sometimes the nurses abuse, shouting and scolding us.” (AD8)</i> Observation: • 3/8 health facilities had trained staff on ARH and rights; • 1/8 schools demonstrated evidence of ARH staff training; structured teaching guidelines were absent (0/8).
5. Facility Characteristics	<i>“People [other patients, and health workers] are listening when talking with the doctor.” (AD64)</i> Observation: • 2/8 health facilities had functional adolescent corners • In schools, 6/8 had private counselling rooms, though without scheduled ARH sessions (0/8).
6. Equity and Non-Discrimination	<i>“They ignore us and work on adults first.” (AD9)</i> Observation: • 1/8 facilities displayed rights posters. • No facilities had disability adaptations. • In schools, 2/8 had gender equality messaging.
7. Data and Quality Improvement	<i>“They [health workers] should always follow them up, but they do not care much.” (POA13)</i> Observation: • In health facilities, 8/8 collected adolescent data, but none demonstrated documented review or action plans. • 6/8 schools had suggestion boxes, no schools had ARH goals posted (0/8) or monitoring charts displayed (0/8).
8. Adolescent Participation	<i>“They [health workers] should be communicating through us, the parents.” (POA10)</i> Observation: • 1/8 facilities reported youth involvement; • 2/8 schools had student clubs; however, structured participatory mechanisms were absent in most schools ($\leq 1/3$ indicators).

Table 3 provides an overview of the extent to which health facilities demonstrated elements of the WHO Global Standards for Quality Health-Care Services for Adolescents. The main pattern is that implementation was strongest for the appropriate service package and facility characteristics, while community support and adolescent participation were consistently weak.

No facility demonstrated comprehensive implementation across all eight standards.

Classification is based on the number of observation indicators per WHO Global Standard

domain (n/N). “Present” indicates $\geq 2/3$ of indicators observed; “Partially present” indicates $\geq 1/3$

to $< 2/3$; and “Absent” indicates $< 1/3$. Categories summarise structured observation findings

across facilities.

Table 3. Observed implementation of ARH WHO standards across health facilities (n/N)

Standard	Facility 1	Facility 2	Facility 3	Facility 4	Facility 5	Facility 6	Facility 7	Facility 8
Adolescents' health literacy (4 indicators)	Partially present (2/4)	Absent (1/4)	Absent (1/4)	Present (3/4)	Partially present (2/4)	Present (3/4)	Absent (1/4)	Present (3/4)
Community support (6 indicators)	Absent (0/6)	Partially present (2/6)	Absent (1/6)	Absent (1/6)	Absent (1/6)	Absent (1/6)	Partially present (2/6)	Partially present (2/6)
Appropriate package of services (3 indicators)	Present (2/3)	Present (2/3)	Present (2/3)	Partially present (1/3)	Present (2/3)	Partially present (1/3)	Present (2/3)	Present (2/3)
Providers' competencies (9 indicators)	Partially present (4/9)	Absent (2/9)	Partially present (4/9)	Partially present (5/9)	Partially present (5/9)	Present (6/9)	Partially present (3/9)	Partially present (5/9)
Facility characteristics (12 indicators)	Present (8/12)	Partially present (6/12)	Partially present (7/12)	Partially present (7/12)	Present (9/12)	Partially present (7/12)	Present (8/12)	Partially present (7/12)
Equity and non-discrimination (7 indicators)	Partially present (3/7)	Absent (2/7)	Absent (2/7)	Absent (2/7)	Partially present (4/7)	Partially present (3/7)	Absent (2/7)	Absent (2/7)
Data and quality improvement (6 indicators)	Partially present (3/6)	Partially present (3/6)	Partially present (3/6)	Partially present (3/6)	Partially present (3/6)	Partially present (3/6)	Partially present (3/6)	Partially present (3/6)
Adolescents' participation (4 indicators)	Absent (1/4)	Absent (1/4)	Absent (1/4)	Absent (1/4)	Absent (1/4)	Absent (1/4)	Absent (1/4)	Absent (1/4)

The school domains reflect institutional components assessed in accordance with national school

health guidelines and are conceptually aligned with, but not identical to, the WHO Global

Standards. The school findings provide complementary evidence on the broader ARH prevention, education, referral, and participation environment surrounding health service delivery. Table 4 shows that student engagement was the strongest school-based domain, while curriculum integration and monitoring and evaluation were absent across all schools; most other domains were only partially present or absent. Classification is based on the number of observation indicators per domain (n/N). “Present” indicates $\geq 2/3$ of indicators observed; “Partially present” indicates $\geq 1/3$ to $< 2/3$; and “Absent” indicates $< 1/3$.

Table 4: Observed Implementation of ARH in Schools (n/N)

Domain	School 1	School 2	School 3	School 4	School 5	School 6	School 7	School 8
Adolescent health literacy (3 indicators)	Absent (0/3)	Partially present (1/3)	Partially present (1/3)	Absent (0/3)	Partially present (1/3)	Partially present (1/3)	Absent (0/3)	Partially present (1/3)
Curriculum and classroom (3 indicators)	Absent (0/3)	Absent (0/3)	Absent (0/3)	Absent (0/3)	Absent (0/3)	Absent (0/3)	Absent (0/3)	Absent (0/3)
School policies and documentation (4 indicators)	Absent (0/4)	Absent (1/4)	Absent (0/4)	Absent (0/4)	Absent (1/4)	Partially present (2/4)	Absent (0/4)	Partially present (2/4)
Teacher competencies (4 indicators)	Absent (0/4)	Absent (0/4)	Partially present (2/4)	Partially present (2/4)	Partially present (2/4)	Partially present (2/4)	Partially present (2/4)	Partially present (2/4)
Student engagement (3 indicators)	Partially present (1/3)	Present (2/3)	Present (2/3)	Absent (0/3)	Present (2/3)	Present (3/3)	Absent (0/3)	Present (3/3)
School environment (2 indicators)	Partially present (1/2)	Partially present (1/2)	Partially present (1/2)	Absent (0/2)	Partially present (1/2)	Partially present (1/2)	Absent (0/2)	Partially present (1/2)
Community involvement (2 indicators)	Absent (0/2)	Partially present (1/2)	Partially present (1/2)	Partially present (1/2)	Absent (0/2)	Absent (0/2)	Partially present (1/2)	Absent (0/2)
Monitoring and evaluation (4 indicators)	Absent (1/4)	Absent (1/4)	Absent (1/4)	Absent (0/4)	Absent (1/4)	Absent (1/4)	Absent (0/4)	Absent (1/4)

WHO Standard 1: Adolescent Health Literacy

Adolescent health literacy focuses on providing accurate, age-appropriate, and understandable information that enables adolescents to make informed decisions about their health and to access services.

Observations indicated uneven implementation across facilities and schools. In health facilities, adolescent-specific ARH materials were absent in 5 of 8 facilities, although general health posters were commonly displayed. Only three facilities met at least three of the four indicators assessed in this domain.

In schools, dedicated ARH information boards were observed in 5 of 8 schools. However, none of the schools displayed ARH rights materials or incorporated ARH topics into formal curricula, libraries, or official documentation (0 of 8 schools). Field observations further indicated that sexuality-related messaging in several schools was framed in moral or abstinence-oriented terms, such as “Abstain from sex”, “Virginity is your pride,” or “Fornication is a sin”, rather than through structured ARH education.

Adolescent girls and caregivers reported variability in the clarity and accessibility of information provided during consultations. Twelve of 80 adolescent girls (12/80) stated that clearer explanations would improve their understanding of services. Five adolescent girls (5/80) reported difficulty understanding consultation information, often due to language barriers or limited explanations. One caregiver explained: “*She [doctor] was using only English... this girl [daughter] could not understand what the doctor was saying.*” (POA10)

At the same time, some adolescent girls described positive communication experiences. One adolescent stated: “*Even when you do not understand, and you ask, the doctor can explain to you very well.*” (AD65)

This suggests that adolescent health literacy was inconsistently integrated into routine practices at health facilities and schools.

WHO Standard 2: Community Support

Standard 2 emphasises the importance of supporting adolescents through families, communities, and social networks, fostering referral linkages and community engagement to improve access to reproductive health services.

In health facilities, structured community engagement mechanisms were limited. Although some facilities met at least one or two of the six assessed indicators, none reached the “present” threshold ($\geq 2/3$ indicators). Most facilities had no active outreach activities at the time of observation that had previously been supported through donor-funded programmes. Although adolescent peer educators were identified in four facilities, they were inactive and had not received recent ARH training.

In schools, community involvement was also limited. Four of eight schools held parent-teacher association (PTA) meetings; however, ARH topics were not included on meeting agendas. Partnerships with health facilities or NGOs were reported in four of eight schools, but these collaborations were short-term and focused primarily on general health check-ups rather than structured ARH programming. No schools demonstrated comprehensive community engagement across the assessed indicators.

In the exit interviews, 73 of 80 adolescent girls reported receiving some form of family or community support when seeking reproductive health services. The most common form of support was financial assistance, reported by 47 of 80 adolescent girls. Other forms of support included encouragement to seek services (10/80), accompaniment to appointments (7/80),

provision of information (6/80), and other forms of assistance (4/80). 7 of 80 adolescent girls (7/80) did not report receiving support.

Support differed by marital status. Among married adolescent girls (n=60), 40/60 reported receiving financial support, and 7/60 were accompanied to the facility. Among single adolescent girls (n=20), 7/20 reported receiving financial support, and none reported being accompanied. Four single adolescent girls (4/20) reported no support at all.

Interview narratives reflected these patterns. Married adolescent girls more frequently described partner or family support: *“He [partner] helps me in everything; he tries to give me whatever I ask for.”* (AD45)

In contrast, adolescent girls who became pregnant while still in school or outside marriage more often described limited or absent support: *“I was impregnated while still in school, and the man is never supportive.”* (AD20)

While informal family support was commonly reported, structured and institutionalised community engagement mechanisms were weak across both health and school settings.

WHO Standard 3: Appropriate Package of Services

Standard 3 requires that adolescents receive a comprehensive and appropriate package of sexual and reproductive health (SRH) services, including timely care, essential medicines and supplies, and referral where necessary.

Across health facilities, implementation of the service package was stronger than in other domains. Most facilities met at least two of the three assessed indicators ($\geq 2/3$ threshold).

However, stock-outs of essential commodities were observed in 2 of 8 facilities, affecting access

to family planning commodities and pregnancy test kits. Where services or supplies were unavailable, referral mechanisms to higher-level facilities were maintained, indicating that some access pathways were continued despite resource constraints.

Observations also indicated that adolescent-specific service components introduced through donor-supported programmes, such as adolescent-friendly spaces, were no longer functional in most facilities after funding was withdrawn.

In the exit interviews, 78 of 80 adolescent girls reported receiving the service for which they had attended the facility. However, 68 of 80 reported receiving all prescribed medicines. Others reported being referred elsewhere or asked to purchase medicines due to stock-outs.

Some adolescent girls expressed appreciation when medicines were provided free of charge:

“They [health workers] gave me all the medicines and did not tell me to buy any.” (AD7)

Others reported being asked to purchase items despite expectations of free services:

“I knew medicine was free, but I was told to pay 1000 for some tablets.” (AD23)

Several adolescent girls described encountering unavailable medicines:

“At times, you find that they do not have all the medicine you need.” (AD5).

This suggests that core services were more consistently available than adolescent-specific components, which remained vulnerable to stock-outs and interruptions.

WHO Standard 4: Providers’ Competencies

Standard 4 focuses on ensuring that health-care providers have the skills, attitudes, and support required to deliver respectful, non-judgmental, and adolescent-responsive care.

Facility observations indicated variability in provider competencies. Only one of eight facilities (1/8) met the “present” threshold for this domain ($\geq 2/3$ of nine indicators). One facility was classified as absent (2/9 indicators), while the remaining facilities were partially present. Although all facilities had qualified clinical staff, only 3 of 8 had received adolescent-focused training in recent years. Adolescent-specific job aids and guidelines were not visibly displayed in any facility.

Adolescent girls and caregivers reported varied experiences of provider attitudes and professionalism. In the exit interviews, 55 of 80 adolescent girls reported being treated respectfully by health workers, 16 of 80 (16/80) described the experience as somewhat respectful, and 9 of 80 (9/80) reported not being treated respectfully.

Some adolescent girls described positive interactions:

“The service providers are friendly and polite.” (AD73)

Others reported negative encounters, including rudeness or scolding:

“Sometimes the nurses always abuse us..., they are always scolding us.” (AD6)

Time allocation during consultations also varied. 49 of 80 adolescent girls reported being given adequate time during their consultation with the health-care provider, 25 of 80 reported being given some time, and 6 of 80 (6/80) reported not being given adequate time.

Adolescent girls who felt adequately attended to stated:

“He gave me enough time because I came with a lot of questions.” (AD63)

Another adolescent described a hurried consultation:

“They are always in a hurry, and they are always attending to so many people.” (AD28)

Provider competencies were inconsistently supported across facilities, with variation in adolescent-focused training, communication, time allocation, and adherence to adolescent-friendly care practices.

WHO Standard 5: Facility Characteristics

Standard 5 focuses on ensuring that health facilities provide a safe, accessible, and adolescent-friendly environment, including adequate infrastructure, privacy, cleanliness, and opening hours that meet adolescents' needs.

Facility observations indicated variability in infrastructure and adolescent-friendly characteristics. Three of eight facilities met the “present” threshold for this domain ($\geq 2/3$ of twelve indicators), while the remaining facilities were partially present. Seven of eight facilities were clean and well-maintained; one facility was observed to have poor waste management. All facilities had water, electricity, and waste-disposal systems, though three lacked separate male and female toilets.

Only two of eight facilities had functional adolescent-only spaces at the time of observation. In the remaining facilities, designated adolescent spaces were unavailable or had ceased operation following the withdrawal of donor support. No facilities provided recreational activities specifically for adolescents.

Privacy during consultations was inconsistently ensured. Privacy breaches were observed in two facilities, where consultations occurred in open or shared spaces without adequate visual or audio separation.

Outpatient ARH services typically began around 9:00 AM and ended between 3:00 PM and 5:00 PM, depending on the facility. None of the facilities offered routine ARH services in the evenings or at weekends; services outside these hours were limited to emergencies.

Adolescent girls reported varied experiences regarding cleanliness, privacy, waiting time, and accessibility. In the exit interviews, 73 of 80 adolescent girls described facilities as clean, very clean, or extremely clean, while 7 of 80 (7/80) described facilities as dirty or very dirty.

“The facility is very clean; the toilets and bathrooms were kept clean.” (AD80)

Others described unhygienic conditions:

“I’m not sure if it was sewage that had spilt, but it was really stinking ” (POA10)

Privacy during consultations also varied. 57 of 80 adolescent girls (57/80) reported that privacy was protected, 17 of 80 (17/80) reported that privacy was somewhat protected, and 6 of 80 (6/80) reported that privacy was not protected.

“I was inside with the doctor alone, and I was comfortable.” (AD79)

“There are always people listening to what you are telling the doctor.” (AD64)

Waiting times differed across facilities. 32 of 80 adolescent girls reported waiting 0-30 minutes, 19 of 80 reported waiting 30-60 minutes, and 29 of 80 reported waiting more than one hour.

“I reached here at 8 am... now it’s 2 pm, but we are about to leave.” (AD9)

Accessibility also varied by distance and transport cost. 45 of 80 adolescent girls reached the facility within 30 minutes, while 23 of 80 travelled for 45 minutes or more, including 15 of 80 who travelled more than 1 hour. Transport costs made access difficult for 34 of 80 adolescent girls and somewhat difficult for 8 of 80.

“I had borrowed 4000 Shilling [1 dollar] to bring me, and I will walk home.” (AD26)

Adolescent-friendly facility characteristics were partially implemented across sites, with differences in infrastructure, privacy, operating hours, waiting times, and physical accessibility shaping adolescents’ experiences.

WHO Standard 6: Equity and Non-Discrimination

Standard 6 requires that adolescents receive services equitably, without discrimination based on age, marital status, pregnancy status, language, or other personal characteristics, and that these services be accessible to all adolescents.

Facility observations identified limited institutional mechanisms to support equity and non-discrimination. Only 1/8 displayed a poster outlining adolescent sexual and reproductive health rights. None had visible written policy guidelines addressing adolescent equity or non-discrimination. Language accessibility was limited; only one facility had materials translated into the local language, while the remaining facilities relied primarily on English. No facilities had disability-adapted infrastructure, such as ramps or widened doorways.

Language accessibility mechanisms were limited across facilities. No facilities provided interpreters or sign-language support for adolescents. No structured procedures were observed to accommodate adolescents who were not proficient in English.

School observations showed similar gaps. Two of the eight schools had codes of conduct that promoted gender equality; however, none included explicit provisions addressing ARH rights. No schools had formal policies supporting pregnant or parenting students, and such students were reported to discontinue schooling without structured support.

Adolescent girls reported varied experiences of discrimination and unfairness in service delivery. In the exit interviews, 62 of 80 adolescent girls reported not feeling looked down upon during their visit, 10 of 80 reported feeling somewhat looked down upon, and 8 of 80 (8/80) reported clearly feeling looked down upon by health workers.

Some adolescent girls described respectful treatment:

“They [health workers] treated me really well.” (AD45)

“They treated her [daughter] with respect.” (POA19)

Others reported experiences suggestive of differential treatment:

“They [health workers] ignore us and work on adults first, even if you came before them.” (AD9)

“Sometimes the nurses always abuse us. Most of them have good relations with adults, but for us... they are always scolding us.” (AD10)

Although most adolescent girls reported fair treatment, these accounts suggest that some adolescents experienced differential treatment in contexts where institutional safeguards to ensure equity and non-discrimination were limited across both facilities and schools.

WHO Standard 7: Data and Quality Improvement

Standard 7 requires health facilities and schools to collect, review, and use adolescent health data and feedback to support continuous quality improvement and accountability.

In health facilities, adolescent service data were routinely recorded. All eight facilities (8/8) maintained registers or electronic systems that captured adolescent service utilisation. However, none had adolescent-specific reporting tools, performance dashboards, or publicly displayed

targets for ARH services. No facility documented the use of adolescent data for performance review or service improvement.

Five of eight facilities (5/8) had suggestion boxes or quick response (QR)-based feedback systems; however, none collected or analysed feedback specifically for adolescents, and no action plans linked to client feedback were observed. Only three facilities (3/8) had received recent supervisory visits, none of which focused specifically on adolescent services. Continuing medical education schedules rarely included adolescent health topics.

School observations revealed similarly limited monitoring structures. None of the eight schools displayed adolescent health data, monitoring charts, or performance indicators. Although six schools (6/8) had suggestion boxes, no procedures for reviewing or acting on student feedback were documented. The presence of registers, suggestion boxes, and feedback channels without documented review or action was consistent with symbolic compliance, in which formal mechanisms were present but were not linked to routine quality improvement.

Parents and adolescent girls reported limited follow-up or accountability mechanisms related to adolescent services. One caregiver expressed concern about the lack of responsiveness: “*They [health workers] should always follow them [adolescents] up, because there are enough health workers here, but they do not care much; everyone is doing their own stuff.*” (POA13)

While health facilities collected adolescent service data and some facilities and schools had feedback channels, systematic use of these data for adolescent-focused quality improvement was not observed.

WHO Standard 8: Adolescent Participation

Standard 8 emphasises meaningful adolescent involvement in the planning, monitoring, and evaluation of sexual and reproductive health services.

Facility observations indicated limited adolescent participation in service planning and governance. Only one of eight facilities (1/8) reported adolescent involvement in meetings or participatory activities related to reproductive health. Staff noted that adolescent engagement had occurred during donor-funded programmes but was no longer active at the time of observation.

School observations similarly showed minimal structured adolescent participation. Two of eight schools (2/8) had student clubs focused on adolescent health; however, these clubs were inactive at the time of data collection. No schools had formal mechanisms for involving adolescents in ARH decision-making, monitoring, or programme design. The presence of inactive clubs and previously donor-supported activities was consistent with passive implementation, as participatory structures were not sustained within routine institutional practice.

Structured adolescent participation in reproductive health planning and governance was limited across both health facilities and schools.

Discussion

This discussion interprets the study findings in relation to Uganda's adolescent reproductive health policy commitments and the WHO Global Standards for Quality Health-Care Services for Adolescents. The study's central contribution is the identification of alignment without institutionalisation: Uganda's policy framework is normatively aligned with global standards, but adolescent-responsive components remain insufficiently embedded in routine health and school systems. Rather than reflecting simple noncompliance, the observed patterns point to structural and institutional constraints, donor-dependent programming, and sociocultural contexts that

shape how standards are enacted in practice. Drawing on Street-Level Bureaucracy theory, the discussion examines how policy design, financing arrangements, organisational capacity, and prevailing social norms interact to produce uneven and selective implementation of adolescent-responsive care.

Alignment Without Institutionalisation: Policy Adoption in a Constrained System

Uganda's ARH policy framework aligns with the WHO Global Standards for Quality Health-Care Services for Adolescents and articulates a clear commitment to equitable, adolescent-friendly care. However, the findings indicate that this normative alignment has not been institutionalised within routine service delivery systems. Across health facilities and schools, implementation was partial and uneven, suggesting that policy guidance does not automatically translate into sustained operational practice.

Resource constraints were central to this gap. Stock-outs of family planning commodities and pregnancy test kits in two facilities, limited adolescent-dedicated spaces, and the absence of structured outreach activities constrained the delivery of a comprehensive service package. These findings echo prior evidence from Uganda and other sub-Saharan African contexts, where youth-friendly services remain fragile when not embedded within stable supply chains and domestic financing systems (20, 21, 23).

The study further revealed a pattern of donor-dependent implementation. Adolescent-friendly corners, peer education initiatives, and school-based ARH clubs were often introduced through externally funded programmes but became inactive once funding ended. Rather than being absorbed into routine institutional budgets and supervision systems, adolescent-responsive components remained project-based and peripheral. Similar dynamics have been described in

settings where policy adoption is rapid, but system integration is slow, resulting in islands of innovation that dissipate once external support is withdrawn (32). In this study, donor withdrawal exposed rather than solely caused this institutional fragility. Sustainability depended on whether externally initiated activities were absorbed into routine domestic financing, staffing, supervision, data systems, and school governance structures.

Recent changes in global sexual and reproductive health financing provide additional context for these patterns. In many low-income settings, adolescent-focused programming, including contraceptive commodities and outreach, remains partially supported by external donor financing (33). Fluctuations in external funding streams may affect continuity when domestic absorption mechanisms are limited. In this context, the implementation gaps observed in this study may reflect structural challenges within financing arrangements that rely on external support. Donor withdrawal, therefore, did not create implementation gaps in isolation; rather, it exposed the limited extent to which adolescent-responsive activities had been embedded within routine health and school systems.

The findings suggest that Uganda's ARH policy environment may be characterised as normatively aligned but institutionally under-embedded. Standards are present at the policy design level but are insufficiently integrated into routine budgeting, supervision, provider development, data use, accountability, and school governance systems. Consequently, adolescent-responsive activities remain peripheral or project-based rather than functioning as routine institutional responsibilities.

Discretion in Enacting Standards Under Constraint

Drawing on Street-Level Bureaucracy theory, the findings illustrate that ARH standards are enacted through everyday discretionary practices shaped by scarcity, workload pressures, and weak oversight (34-36). In several facilities, providers maintained essential maternal and reproductive services despite shortages, reflecting adaptive discretion under constraint. However, passive discretion was evident when adolescent-specific activities lapsed in the absence of supervision or dedicated resources, and symbolic compliance was evident when markers such as posters, suggestion boxes, and clubs were present without clear evidence of use. These forms of discretion had different implications for implementation. Adaptive discretion helped maintain access when formal systems could not provide all required services. In contrast, passive discretion allowed adolescent-specific activities to lapse, while symbolic compliance preserved visible markers of implementation without corresponding feedback, monitoring, or action. Discretion, therefore, supported service continuity in some circumstances but also contributed to uneven implementation where institutional guidance, resources, and accountability were weak. Importantly, discretion in this study was shaped not only by material constraints but also by social and moral contexts. Variability in provider attitudes, particularly toward unmarried adolescents, suggests that implementation of adolescent-friendly standards is influenced by prevailing norms regarding premarital sexuality. In schools, abstinence-focused messaging and the absence of structured reproductive health curricula further illustrate normative ambivalence toward adolescent sexual agency. Evidence from Uganda and similar settings has shown that community and provider attitudes significantly shape adolescents' access to contraception and SRH information, particularly where sexuality education remains socially contested (20, 37, 38). These findings indicate that non-compliance should not be understood solely as a technical failure. Rather, frontline discretion operates at the intersection of limited resources,

organisational pressures, and embedded moral frameworks. In the absence of strong accountability and supervision systems that explicitly reinforce adolescent rights and equity, discretion may default to prevailing social norms or minimal compliance.

Thus, the policy-to-practice gap identified in this study reflects not rejection of standards, but selective operationalisation within constrained and normatively complex environments.

Socially Structured Access: Gender, Marriage, and Community Context

The predominantly married and out-of-school profile of adolescent girls interviewed in this study highlights the gendered structuring of access to reproductive health services in southwestern Uganda. Maternal services were commonly accessed and appeared to be more socially legitimised within marriage, whereas unmarried adolescent girls more frequently reported stigma, scolding, or lack of support. These patterns suggest that formal standards promoting universal adolescent-friendly care operate within a context where reproductive health services are more socially accepted when linked to marriage. This creates unequal forms of legitimacy within ARH services: maternal care for married adolescents is more socially accepted, while contraceptive use and sexual health needs among unmarried adolescents are more likely to attract scrutiny, stigma, or moral judgment. Access is therefore shaped not only by service availability but also by whether an adolescent's reproductive needs are considered socially legitimate. Similar debates in Brazil show how adolescent sexuality and pregnancy may be regulated through gendered and moral expectations, including abstinence-oriented approaches that constrain comprehensive, rights-based responses (39). This literature situates the present findings within a broader body of evidence showing that adolescent reproductive health access is shaped not only by service availability but also by community support, provider attitudes, stigma,

gendered expectations, and contested norms around sexuality education and adolescent pregnancy (20, 37-39).

The narrative of adolescent girls further revealed limited and uneven community support.

Although 73 of 80 adolescent girls reported some form of family or community support, this support was predominantly financial and informal rather than linked to structured or institutionalised community engagement mechanisms. Where support was present, it was largely financial rather than informational or emotional. Prior research in sub-Saharan Africa similarly shows that stigma, fear of judgment, and weak family communication constrain ARH utilisation (20, 37). In this study, informal gatekeeping within families and schools, such as discouraging contraceptive use or limiting discussion of sexuality, further shaped access trajectories.

The findings, therefore, emphasise that ARH implementation cannot be divorced from broader sociocultural realities, including gender norms, religious influence in educational settings, early marriage patterns, and economic dependency among adolescent girls. While WHO standards articulate equity and participation as core principles, their enactment in practice remains mediated by these social structures.

Implementation gaps in Uganda's ARH services were systemic rather than incidental. The standards were not rejected but selectively enacted through the interaction of financing structures, organisational capacity, frontline discretion, and sociocultural norms. Discretion supported service continuity under resource constraints but also contributed to variability, passive implementation, and symbolic compliance where institutional support and accountability were weak.

This study contributes to the international literature on health-policy implementation and adolescent sexual and reproductive health by showing how normative alignment with global standards can coexist with weak institutional embedding. Combining the WHO Global Standards with Street-Level Bureaucracy theory identifies both where implementation fell short and how organisational constraints, discretionary practices, and social norms shaped these gaps. This analytical approach may be relevant to similar resource-constrained settings.

Strengths and Limitations

This study provides a systematic assessment of ARH policy implementation across both health facilities and schools, using the WHO Global Standards and Street-Level Bureaucracy theory as complementary analytical frameworks. The structured mapping of implementation domains, combined with facility and school observations and exit interviews with adolescent girls and caregivers, enabled triangulation of institutional practices and service-user experiences. Data collection following the withdrawal of donor-supported initiatives also enabled examination of sustainability in the absence of external funding.

The study also had limitations. It was conducted in two districts in southwestern Uganda, and findings may not reflect regional variation. Frontline health workers, teachers, and managers were not interviewed; therefore, interpretations of discretionary practice are based on observed implementation patterns and adolescent girls' accounts rather than providers' stated intentions. In addition, the exit-interview sample was predominantly composed of older, married, out-of-school adolescent girls accessing maternal health services. The exit-interview findings therefore primarily represent the experiences of service-seeking adolescent girls and should not be generalised to the broader adolescent population, including younger adolescents, unmarried girls not accessing services, in-school adolescents, boys, and young men.

Furthermore, because interviews were conducted immediately after service utilisation within facility premises, responses may have been influenced by social desirability or courtesy bias.

Despite these limitations, the study offers structured insight into how ARH standards are enacted in routine institutional settings under resource and sociocultural constraints. Future research should include provider perspectives and longitudinal or comparative designs to further examine sustainability and discretionary practice over time.

Conclusion

Although Uganda's ARH policies align with WHO Global Standards, their implementation in routine health and school settings remains uneven and institutionally fragile. This study shows that implementation gaps are not isolated operational failures but reflect structural constraints, donor-dependent programming, and sociocultural contexts that shape how standards are enacted in practice. By integrating the WHO framework with Street-Level Bureaucracy theory, the findings highlight how discretion under resource and normative constraints produces adaptive, passive, and symbolic forms of implementation.

Strengthening adolescent-responsive care, therefore, requires moving beyond policy alignment towards institutional embedding. Adolescent-responsive components should be integrated into routine financing, supervision, and monitoring systems rather than sustained primarily through time-limited donor projects. Given the central role of discretionary practice observed in this study, implementation strategies should focus on structuring and supporting frontline decision-making through regular mentorship, adolescent-specific supervision, and accountability mechanisms. Efforts to strengthen service delivery must also engage with sociocultural norms that shape adolescent sexuality and influence access, particularly for unmarried girls. The

findings point to three policy priorities: institutional financing for adolescent-responsive services; adolescent-specific supervision and accountability mechanisms; and school-health referral systems that include comprehensive, rights-based ARH education rather than only abstinence messaging.

List of Abbreviations

ANC: Antenatal Care

ARH: Adolescent Reproductive Health

FP: Family Planning

HC: Health Centre

HIV: Human Immunodeficiency Virus

KU Leuven: Katholieke Universiteit Leuven

LMICs: Low- and Middle-Income Countries

NGO: Non-Governmental Organisation

NRIMS: National Research Information Management System

NVivo: Qualitative data analysis software

PNC: Postnatal Care

PTA: Parent-Teacher Association

QR: Quick Response

REC: Research Ethics Committee

RH: Reproductive Health

SLB: Street-Level Bureaucracy

SRH: Sexual and Reproductive Health

UNCST: Uganda National Council for Science and Technology

WHO: World Health Organization

Declarations

Ethics approval and consent to participate

Ethical approval was obtained from the Research Ethics Committee of KU Leuven (PRET approval number: G-2024-8892-R4(MAR)) and Kabale University Research Ethics Committee (KABREC-2025-883). Final clearance was obtained from the Uganda National Council for Science and Technology (UNCST) (HS6231ES) through the National Research Information Management System (NRIMS). Administrative permission was also obtained from Mbarara Regional Referral Hospital, Kabale Regional Referral Hospital, and the relevant district health authorities in Mbarara and Kabale. All procedures involving human participants were conducted in accordance with the ethical standards of the relevant institutional and national research committees and with the 2013 Declaration of Helsinki. Written informed consent was obtained from participants aged 18 years and above. For participants younger than 18 years, written assent and parent or caregiver consent were obtained when the participant was accompanied. Unaccompanied participants who met the national criteria for mature or emancipated minors provided written informed consent for research participation in accordance with REC approvals and national guidance.

Consent for publication

Not applicable. The study does not include any data, images, or information that could identify participants.

Availability of data and materials

The datasets generated and analysed during this study are not publicly available due to confidentiality requirements and the risk of indirect identification in qualitative interview data, but are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

SA designed the study, carried out data collection and analysis, and drafted the manuscript. KM and VNN provided conceptual guidance, supervised the study, and critically revised the manuscript. All authors read and approved the final manuscript.

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S1: Checklist: Consolidated criteria for reporting qualitative studies (COREQ)

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